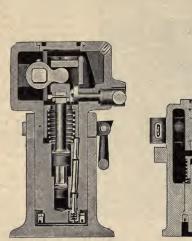
THE DUDGEON UNIVERSAL HYDRAULIC JACK.



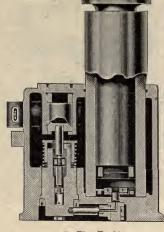


Fig. D. 219.

Fig. D. 220.

Showing Construction of Two Typical Forms of the Universal Jack.

The new Universal Jack, which is shown by the two sectional views above, embodies features never before used in hydraulic jacks, which combine to make it the simplest and most efficient jack on the market.

It has double pumps, so that if the load is light, or if the ram must be extended some distance before the strain commences, the two pumps can be used together until the strain becomes excessive, when one pump is thrown out by a turn of the handle. Reversing the operation throws both pumps into service again.

This jack may be lowered either by the lever or by the valve handle, and it can be furnished upon request to lower by either method alone. It requires but one pressure valve for both pumping and lowering. It neither requires an additional pressure valve, or valves, on account of its double pump (which has heretofore been the case), nor does it require an additional pressure valve (which has also heretofore been the case) for lowering.

This jack is lowered by the operator's pressing all the valves from their seats by the lever or valve handle, as he may desire, since all the valves are combined in a single valve chamber in a superimposed position, and all are forced off their seats together. The superimposed valves and pistons are new and desirable features, as any valve or either piston may fail and the jack continue in operation to its maximum capacity.

DUDGEON'S UNIVERSAL HYDRAULIC JACKS.



Fig. D. 221

Fig. D. 222.



Fig. D. 223.

Plain jack for use in presses or where there is a firm foundation or support.

Railroad jack for work where stability and portability are required.

Base jack for railroad work or where a broad base insuring stability is required.

Lift.	Out	Plain Jack.			Rai	lroad Ja	ck.	Base Jack.		
100	Run O Inches.	Height Inches.	Weight Pounds.	Price.	Height Inches.	Weight Pounds.	Price.		Weight Pounds.	Price.
10 10 15 15 20 20 30 30 40 40 50 50 60	12 18 12 18 12 18 12 18 12 18 12 18 12 18 12	25 32 26 32 26 33 22 26 33 27 34 28 33 28	80 98 102 120 127 155 146 194 260 280 320 333 374 350	\$ 80 95 100 125 120 145 150 175 210 240 240 290 290	25 31½ 25 31 26 33 21 26 32 27 32 28 33 27	105 146 135 155 167 203 190 206 255 265 310 374 350 320	\$ 90 100 115 140 165 160 185 220 260 250 300 300	25 31 25 32 26 32 27 33 27 35 28 36 39	109 125 135 158 168 227 210 271 310 340 392 427 491 508	\$ 95 110 125 150 150 175 170 200 235 240 280 260 310

Discount.....

DUDGEON'S UNIVERSAL HYDRAULIC JACKS.



Fig. D. 224.
For general use and for work that will not permit the head to be placed under the load.



Fig. D. 225.
Independent claw jack for work where stability and a low lift are required.

Fixed Claw Jack.

Independent Claw Jack.

Lift.	Run Out.	Height.	Weight.	Price.	Lift	Run Out.	Height.	Diameter of Base.	Weight of Jack with Claws.	Weight of Jack without Claws.	Price.
Tons.	Ins.	Ins.	Lbs.		Tons.	Ins.	Ins.	Ins.	Lbs.	Lbs.	
10 10 15 15 20 20 30 30 30 40 40	12 18 12 18 12 18 9 12 18 12 18 12 18 12	25 32 26 32 26 33 22 26 32 26 32 27 34 27	125 144 162 190 203 245 290 310 364 355 460 450	\$100 120 150 185 200 240 225 250 285 300 325 325	10 10 15 15 20 20 30 30 40 40 50 50 60	12 18 12 18 12 18 12 18 12 18 12 18 12 18 12	26 32 26 32 27 33 22 27 33 27 33 28 33 28	11 11 11 11 12 12 12 12 13 13 13 15 15 16	155 195 195 210 252 295 270 330 385 380 465 530 625	105 125 135 155 170 190 190 213 260 270 315 379 480 460	\$ 95 110 135 160 175 200 190 220 260 260 300 350 350

Discount

DUDGEON'S UNIVERSAL HYDRAULIC JACKS. CAR INSPECTOR'S JACKS.



Fig. D. 226. Plain Type.

Lift Tons.	Run Out Inches.	Height Inches.	Size of Round Base, Inches.	Weight Pounds.	Price.	
15	5	11	6	48	\$ 80 00	
20	5	11	7	58	100 00	
25	4	11	7½	76	115 00	
30	5	11	8	89	130 00	

Discount.....



Fig. D. 227. Low Type.

Lift Tons.	Run Out Height Inches.		Size of Elliptical Base,Inches.	Weight Pounds.	Price.	
7 10 15 20 25 30	5 5 5 5 5	11 11 11 11 11	9 x6 9½x6½ 9½x6½ 10½x8 11½x8½ 11¼x9	56 70 90 105 115 125	\$ 75 00 90 00 120 00 135 00 145 00 155 00	

Discount....

DUDGEON'S UNIVERSAL HYDRAULIC JACKS.

Horizontal Double Pump Jack with Re-enforced Cistern and Removable Claw.

This is the latest improved type of horizontal claw Jack and is intended for lifting both on the ram head in the usual manner and also by means of the claw where a low lift close to the ground is necessary. It is provided with a specially designed cistern which not only gives a support and guide to the claw but also prevents the crushing of the cistern either by the load on the claw or by the strain coming on the front of the cistern by reason of the load. The larger claw Jacks only are made in this form, as this feature is not required for the smaller sizes



Fig. D. 228.

ons.	Inches.	Horizontal Double Pump Jack with Grooved Head and Without Claw.					Horizontal Double Pump Jack With Re-enforced Cistern and Removable Claw.				
Lift Tons.	Run Out	Height, Inches.	Size of Elliptical Base, Inches.	Weight, Pounds.	Price, Each.	Height, Inches.	Size of Elliptical Base, Inches.	Weight without Claw, Pounds.	Weight with Claw, Pounds.	Price, Each,	
30 30 40 40 50 50 60 60 80 80 100 100 125 125 125 125 200	12 18 12 18 12 18 9 12 18 9 12 18 9 12 18 19 12 18 18 19 12 18 18 18 18 18 18 18 18 18 18 18 18 18	21½ 27 22 28 22 29 19 22 28 20 25 30 21 24 32 22 25 32 25 32 27	13 x10 13 x10 14 x11 14 x11 15 x11½ 16½x12½ 16½x12½ 16½x12½ 16½x12½ 17½x14½ 17½x14½ 17½x14½ 17½x14½ 17½x14½ 20½x16 20½x16 20½	258 314 314 355 345 512 450 550 600 550 655 725 876 1065 850 900 1150 1165 1325	\$200 235 240 280 260 310 250 275 350 313 335 335 3400 475 425 455 500 575 600	21 28 22 28 23 23 28 23 29 23 30 21 24 24 31 22 25 32	15 x11 15 x11 15 x11 16 x11 16 x11 18 x12 18 x12 18 x12 19 x14 19 x14 19 x14 19 x14 22 x16 22 x16	290 350 332 370 414 475 485 590 660 565 665 740 735 820 1025	351 433 418 480 584 565 607 711 684 795 891 946 1042 1268	\$240 285 290 340 320 380 310 340 420 360 390 455 400 475 550	
200 250 250	18 12 18	34 28 35	24 x20 27 x24 27 x24	1500 1700 2000	700 725 850						

Discount.....

DUDGEON'S UNIVERSAL HYDRAULIC JACKS. Oval Base Horizontal.



Fig. D. 229. Removable Cap on Kam.

Transition of the state of the								
Lift, Tons.	Run Out, Inches.	Height With Cap, Inches.	Height Without Cap, Inches.	Size of Elliptical Base, Inches.	Weight, Pounds, Without Cap.	Price.		
30 30 40 40 50 50 60 60 80 80 100 1125 1125 1150 200 250 250	12 18 12 18 12 18 19 12 18 9 12 18 9 12 18 19 12 18 12 18 12 18 12 18 18 19 18 18 18 18 18 18 18 18 18 18 18 18 18	211 27 227 228 222 29 19 22 28 20 25 30 21 24 32 22 25 32 26 33 37 34 28 35	20 25 ½ 20 ½ 26 ½ 26 ½ 26 ½ 26 ½ 20 ½ 20 ½ 20 ½ 21 27 19 22 28 19 22 28 22 28 23 29 24	13 x10 13 x10 14 x11 14 x11 15 x11½ 16½x12½ 16½x12½ 16½x12½ 16½x12½ 17½x14½ 17½x14½ 20½x16½ 20½x16½ 20½x16½ 20½x16½ 20½x16½ 21 x17 21 x17 21 x17 21 x17 22 x18 23 x18 24 x20 24 x20 24 x20 24 x24 27 x24	250 306 304 345 335 500 435 535 585 585 580 635 705 700 856 1035 830 880 1125 1135 1175 1475 1675	\$200 235 240 280 260 310 250 275 350 310 335 385 375 425 425 425 450 525 500 575 600 700 725 850		

Discount.....

DUDGEON'S UNIVERSAL HYDRAULIC JACKS.

With Short Independent Cylinder and Ram.

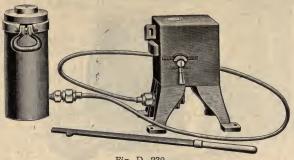


Fig. D. 230.

This type of jack is intended for use in boiler furnaces, under ships, in subway construction, and in other confined places. The cylinder and ram are made as short as possible, and this type is therefore not recommended for lifting a live load because of the short length of ram remaining in the cylinder when it is fully run out. This is the most simple, efficient and reliable independent double pump jack on the market. The pump and cylinder are connected by a flexible copper pipe, 12 feet long, which is included in the price of the jack.

Gauges showing pressure per square inch in pounds, and total pressure on the ram in tons, and provided with a safety check valve, will be furnished, attached for \$25.00, net, extra.

Also made to lift a live load.

Prices on application.



Fig. D. 231. Traversing jack with railroad type of base.

DUDGEON'S UNIVERSAL HYDRAULIC RAILROAD TRAVERSING JACK.

11(11121(01110 0110111									
Lift.	Run Out.	Height of Jack.	Height of Jack and Bed.	Weight.	Price.				
Tons.	In.	In.	In.	Lbs.					
10 15 20 30 40	12 12 12 12 12 12	25 25 26 26 26 26	30 30 31 31 31 31	250 275 330 425 450	\$145 175 215 270 310				

Discount